

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A process for obtaining carbon nanotubes bound to nanometric and/or micrometric-sized composite reinforcement at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports, said process comprising
contacting the supports with a mixture of a carbon source compound and a catalyst in a stream of inert gas and hydrogen, the step of contacting being effected by chemical vapor deposition (CVD).
2. (Currently Amended) The process as claimed in claim 1, further comprising heating, in a reaction chamber, the ~~at least one nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber~~ nanometric and/or micrometric-sized composite reinforcement supports, to a temperature of 600-1100°C, in the stream of inert gas;
cooling the chamber down to room temperature; and
recovering the carbon nanotubes bound to the at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports.
3. (Currently Amended) The process as claimed in claim 2, wherein the nanometric and/or micrometric-sized composite reinforcement at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber supports ~~[[is]]~~ are in the form of particles or fibers.

4. (Currently Amended) The process as claimed in claim 3, wherein the ~~at least one of nanometric and/or micrometric-sized ceramic supports and nanometric and/or micrometric-sized carbon fiber~~ nanometric and/or micrometric-sized composite reinforcement supports ~~[[is]]are~~ formed from carbon fibers; glass fibers; SiC particles and fibers, TiC particles and fibers, Al₂O₃ particles and fibers, SiO₂ particles and fibers, B₄C particles and fibers; silica fume; clays or wires comprising a metallic material.

5. (Previously Presented) The process as claimed in claim 1, wherein the carbon source compound is a liquid hydrocarbon or a gaseous hydrocarbon or a solid.

6. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is an iron metallocene, a cobalt metallocene, a nickel metallocene, an iron nitrate, a cobalt nitrate, a nickel nitrate, an iron acetate, a cobalt acetate, a nickel acetate, an iron sulfate, a cobalt sulfate, and a nickel sulfate.

7. (Previously Presented) The process as claimed in claim 1, wherein the catalyst and the carbon source compound are used in an amount from 0.001 to 0.1 g of catalyst per ml of compound.

8. (Previously Presented) The process as claimed in claim 1, wherein the ratio of inert gas to hydrogen is 5/95 to 50/50.

9. (Currently Amended) The process as claimed in claim 2, further comprising, before said heating, depositing a silicon compound on the surface of said ~~at least one~~ supports.

10. (Previously Presented) The process as claimed in claim 9, wherein the silicon compound is SiO₂ or a silane.

Claim 11. (Canceled)

12. (Currently Amended) ~~The multiscale product of claim 11 further~~ A composite material comprising (i) a polymer, a metal or a ceramic matrix and (ii) a nanoscale/microscale reinforcement material obtainable by the process as claimed in claim 1 consisting essentially of carbon nanotubes grown on nanometric and/or micrometric-sized composite reinforcement supports.

13. (Previously Presented) The process as claimed in claim 4 wherein said metallic material is Fe, Ni, Co, Ti, Pt, Au, Y, Ru, Rh, Pd, Zr, Cr or Mn.

14. (Previously Presented) The process as claimed in claim 5, wherein the carbon source compound is an alcohol or a ketone.

15. (Previously Presented) The process as claimed in claim 5 wherein the carbon source compound is selected from the group consisting of xylene, toluene, benzene, n-pentane; ethanol, methanol; acetone, acetylene, methane, butane, propylene, ethylene, propene and camphor.

16. (Previously Presented) The process as claimed in claim 1 wherein the catalyst is Fe(II) phthalocyanine (FePc) or iron pentacarbonyl ($\text{Fe}(\text{CO})_5$).

17. (Previously Presented) The process as claimed in claim 9 wherein the silicon compound is SiC , SiO or SiO_2 .